

## Datasheet: MCA2315F

**BATCH NUMBER 163799**

<b>Description:</b>	MOUSE ANTI PIG CD107a:FITC
<b>Specificity:</b>	CD107a
<b>Other names:</b>	LAMP-1
<b>Format:</b>	FITC
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	4E9/11
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.1 mg

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry (1)	▪			Neat

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

**(1) Membrane permeabilization is required for this application. The use of Leucoperm (Product Code [BUF09](#)) is recommended for this purpose.**

Target Species	Pig		
Product Form	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	FITC	490	525
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide		
Stabilisers	1% Bovine Serum Albumin		

Approx. Protein Concentrations	IgG concentration 0.1 mg/ml
Immunogen	Porcine alveolar macrophages.
RRID	AB_566439
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse X63-Ag.8.653 myeloma cell line.
Specificity	<p><b>Mouse anti Pig CD107a, clone 4E9/11</b> recognizes porcine CD107a, a cell surface antigen, also known as lysosomal-associated membrane protein-1 or LAMP-1.</p> <p>CD107a is a type 1 single pass transmembrane glycoprotein expressed on macrophages and more weakly on monocytes and granulocytes.</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label $1 \times 10^6$ cells in 100ul.
References	<ol style="list-style-type: none"> <li>1. Bullido, R. <i>et al.</i> (1997) Monoclonal antibodies specific for porcine monocytes/macrophages: macrophage heterogeneity in the pig evidenced by the expression of surface antigens. <a href="#">Tissue Antigens. 49 (4): 403-13.</a></li> <li>2. Carrillo, A. <i>et al.</i> (2002) Isolation and characterization of immortalized porcine aortic endothelial cell lines. <a href="#">Vet Immunol Immunopathol. 89 (1-2): 91-8.</a></li> <li>3. Domenech, N. <i>et al.</i> (2003) Identification of porcine macrophages with monoclonal antibodies in formalin-fixed, paraffin-embedded tissues. <a href="#">Vet Immunol Immunopathol. 94 (1-2): 77-81.</a></li> <li>4. Sánchez-Torres, C. <i>et al.</i> (2003) Expression of porcine CD163 on monocytes/macrophages correlates with permissiveness to African swine fever infection. <a href="#">Arch Virol. 148 (12): 2307-23.</a></li> <li>5. Toka, F.N. <i>et al.</i> (2009) Natural killer cell dysfunction during acute infection with foot-and-mouth disease virus. <a href="#">Clin Vaccine Immunol. 16: 1738-49.</a></li> <li>6. Bullers, S.J. <i>et al.</i> (2014) The human tissue-biomaterial interface: a role for PPAR<math>\gamma</math>-dependent glucocorticoid receptor activation in regulating the CD163<math>^{+}</math> M2 macrophage phenotype. <a href="#">Tissue Eng Part A. 20: 2390-401.</a></li> <li>7. Mair, K.H. <i>et al.</i> (2013) Porcine CD8<math>\alpha</math>dim<math>^{-}</math>-NKp46high NK cells are in a highly activated state. <a href="#">Vet Res. 44: 13.</a></li> <li>8. Cruz, J.L. <i>et al.</i> (2013) Alphacoronavirus Protein 7 Modulates Host Innate Immune Response <a href="#">J Virol. 87: 9754-67.</a></li> <li>9. van Hout, G.P. <i>et al.</i> (2015) Invasive surgery reduces infarct size and preserves cardiac function in a porcine model of myocardial infarction. <a href="#">J Cell Mol Med. 19 (11): 2655-63.</a></li> <li>10. Toka, F.N. <i>et al.</i> (2009) Activation of porcine natural killer cells and lysis of foot-and-mouth disease virus infected cells. <a href="#">J Interferon Cytokine Res. 29 (3): 179-92.</a></li> <li>11. Dash, R. <i>et al.</i> (2018) Dose-Dependent Cardioprotection of Moderate (32°C) Versus Mild (35°C) Therapeutic Hypothermia in Porcine Acute Myocardial Infarction. <a href="#">JACC Cardiovasc Interv. 11 (2): 195-205.</a></li> <li>12. Talker, S.C. <i>et al.</i> (2015) Magnitude and kinetics of multifunctional CD4<math>^{+}</math> and CD8<math>\beta</math><math>^{+}</math> T cells in pigs infected with swine influenza A virus. <a href="#">Vet Res. 46: 52.</a></li> </ol>

<b>Further Reading</b>	1. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. <a href="#">Vet Res. 39: 54.</a>
<b>Storage</b>	<p>This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.</p>
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10041 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2315F10041">https://www.bio-rad-antibodies.com/SDS/MCA2315F10041</a>
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:FITC \(MCA928F\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)  
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